Rec 5/4/56

Flanagan or Sater - Int. 2879

DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

FISH AND WILDLIFE SERVICE

For Release MAY 7, 1956

STUDY CLEARS CHUB FISHERY OF BLAME IN DECLINE OF LAKE MICHIGAN TROUT

The decline of Lake Michigan's trout fishery, which plunged from an annual catch of 6,500,000 pounds in 1946 to a mere 34 pounds in 1955 is due to the sea lamprey rather than to destruction of young trout by the chub fishery or to failure of natural reproduction, a study made by the Fish and Wildlife Service indicates, John L. Farley, Service Director, said today. The study was made by Paul H. Eschmeyer, biologist for the Service. Over-fishing as a reason for the decline was ruled out by earlier studies.

To further emphasize the decrease of trout in Lake Michigan, the research shows that in the first seven months of 1954 gill net settings totaling 8,794,000 feet or 1,666 miles brought up only 326 trout and that in a four months period in 1955 more than 1,400 miles of net caught only eight trout.

The three possible reasons for the decline--the destruction of young trout by the use of small-mesh nets by the chub fishermen, the near or complete failure of natural reproduction and the sea lamprey--are discussed in turn.

The heavy loss of young trout through the chub fishing activities had no adverse effect upon trout abundance, according to the report. During the period, 1935 to 1939, the number of small trout destroyed by chub fishing varied from 688,000 to 927,000. If such destruction had been detrimental to the abundance of trout a serious decline in that abundance could have been expected during the 1939-1944 period. Yet during these years the abundance index varied from 100 percent to 126 percent. This index is based upon the 1929-1944 average. Conversely, in 1940-1944 chub fishing was less intense and destruction of trout was correspondingly lower. But just when the trout fishery should have benefitted by the decreased destruction the fishery collapsed completely in the later 1940's.

Studies also showed that failure of natural reproduction first exerted a major influence in 1954, and that the enormous decline in abundance occurred well in advance of the time when failure of natural reproduction could have been a factor.

A study of the correlation between the size of lake trout and the percentage of individuals bearing sea lamprey scars and other studies in the field of lamprey depredations, plus the ruling out of the other possible causes, leads to the conclusion that the Lake Michigan trout have been brought to near extinction by lethal attack of the sea lamprey.

The sea lamprey was noted in Lake Michigan as early as 1937. By 1946 it was spawning in great numbers in many streams tributary to Lake Michigan. Fish and Wildlife Service biologists who have been working on selective poisons and other methods of controlling the sea lamprey report considerable progress in their efforts.

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